

SUPPLEMENTARY NOTES ON AMERICAN MENISPERMACEAE XIII
NEOTROPICAL TRICLISIEAE AND ANOMOSPERMEAE

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Since the latest paper of this series (Supplement XII) was published, 102 new collections were examined. An excellent progress is being made in exploring French Guiana, also Peru, Northern Venezuela and Brazil.

The newly examined collections added to our knowledge of several species, extension of range were noted for nine, and one species, namely, Sciadotenia peruviana Krukoff & Barneby was described as new.

It was particularly pleasing to place Abuta splendida Krukoff & Moldenke in synonymy under the historical Abuta rufescens Aublet. We have been waiting since 1970 for new material which might enable us to resolve this problem.

II. Curarea Barneby & Krukoff, Mem. N. Y. Bot.

Gard. 22(2): 7. 1971.

1. Curarea toxicofera (Weddell) Barneby & Krukoff, Mem. N. Y. Bot. Gard. 22(2): 9. 1971.

Peru: Loreto: Al. Gentry 18505 (MO) (Rio Itaya, +40 km above Iquitos); Juan Revilla 445 (MO) (Iquitos, Rio Momón).

2. Curarea candicans (L. C. Richard) Barneby & Krukoff, Mem. N. Y. Bot. Gard. 22(2): 12. 1971.

Surinam: Kayser Mountains, S. Mori 8620. French Guiana: Saul: de Granville 2649 (CAY), 2709 (CAY).

3. Curarea tecunorum Barneby & Krukoff, Mem. N. Y. Bot. Gard. 22(2): 12. 1971.

Peru: Loreto: Rio Corrientes at the Ecuadorian border, Al Gentry 19006 (MO).

III. Sciadotenia Miers, Ann. Nat.

Hist. II. 7: 43. 1851

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1. Sciadotenia cayennensis Bentham, Jour. Linn. Soc. Bot. 5 (Suppl. 2): 51. 1861.

French Guiana: C. Moretti 454 (CAY) (Saul), 808 (CAY) (Litani), 843 (CAY), de Granville 5189 (CAY) (Saul), Fr. Halle 2225 (Saul), Cremers 1415 (CAY) (Trois Sauts), S. Mori 8771 (Mont Galbao, summit cloud forest), 8803 (vicin. of Montagne Belvedere).

2. Sciadotenia toxifera Krukoff & A. C. Smith, Bull. Torrey Club 66: 308. 1939.

Peru: San Martin: Mariscal Cáceres, Tocache Nuevo, José Schunke V. 9835 (Nov. 4, 1977), 9836 (Nov. 6, 1977). Both vines are 20-30 m long.

These are vouchers for samples of stemwood used by Dr. Cava in connection with his chemical studies for Cancer Institute.

6. Sciadotenia eichleriana Moldenke in Krukoff & Moldenke, Brittonia 3: 28. 1938.

French Guiana: Saul: de Granville 2729 (CAY).

- 6a. Sciadotenia (\S Sychnosepalum) peruviana Krukoff & Barneby, sp. nov. juxta affinem S. eichlerianam Mold. ponenda, ab ea foliorum lamina supra praeter venas primarias laevi, venulis scalariformibus reticulique impressis immersisve primo intuitu diversa.

Peru: Amazonas: Quebrada de Baš^vš^vinuk, tributary of Huampami, 270 m (900 ft) alt., 16.IX.1972 (O fr), Rubio Kayap 97. -- Holotypus, N.Y. †

Vines of unknown size, the branches of the year finely canaliculate, non-lenticellate, densely subretorsely pilosulous with stiff hairs ± 0.2 mm, glabrescent. Petiole 3--8 cm, near middle ± 1.5 mm diam, dilated both ends; blades ovate-cordate-acuminate 14--18 X 7.5--12 cm, when dry brownish-olivaceous, above smooth, dull, beneath densely pilosulous with erect grayish hairs (not tomentose), palmately 5-plinerved from petiole, the outer pair of primary veins short, weak, incurved 1/4--1/5 the length of blade subparallel to its cordate basal curve, the inner pair incurved-ascending $\pm 2/3$ the length of blade, the midrib giving rise on each side, well above middle, to 1--2 major incurved secondaries, these all above faintly, beneath very sharply and coarsely prominulous, the connecting scalariform and minor venules above impressed or fully immersed, beneath prominulous,

the ultimate reticulation of well-defined areoles mostly > 1 mm diam. Inflorescence σ^7 unknown, Q either axillary subsPICATELY 1--3-flowered or similar but borne on very short, supra-axillary leafless branchlets, 1--3 cm long, the primary axis, subobsolete pedicels, perianth, and gynophores of the fruit all densely fuscous-pilosulous; sepals (seen in bud only) 12; carpels 6. Gynophores in fruit +18 mm, united +8 mm into a column, the free arms dilated and $\bar{3}$ -angulate distally; drupe compressed-obovoid, 15--18 X 9--10 mm, the tawny-venutinous exocarp and (dry) scarcely fleshy mesocarp together +0.1 mm thick, the firmly chartaceous endocarp very shallowly engraved externally.

Related to S. sagotiana (Eichl.) Diels and S. eichleriana Mold., resembling both in the cordate, 5--7-plinerved leaf-blades but different in the smooth upper leaf-surface, all venation beyond the primary and one or two secondary veins arising from the midrib being fully immersed on the upper face. The pubescence of the blade's lower face is simply erect-pilosulous, as in S. eichleriana, not entangled as in S. sagotiana. In outline the blade is narrower than that of S. eichleriana and only 5 (not 7--9)-nerved from entry of the petiole. In shape, texture and venation the leaf of S. peruviana resembles that of S. (Tylopetalum) solimoesana Mold. more nearly than that of any member of its own sect. Sychnosepalum which is characterized by a velvety-pilosulous, not minutely furfura-ceous vestiture throughout the pistillate inflorescence and drupe.

7. Sciadotenia sprucei Diels, Pflanzenreich 4(94): 84. 1910.

Brazil: Para: Serra do Cachimbo, Cuiabá-Santarem highway, Prance 25506 (km 1135), 25598 (vicinity of Igarapé Kazuo, km 1221).

Both collections are from terra firme.

12. Sciadotenia amazonica Eichler, Flora 47: 395. 1864 & in Martius, Fl. Bras. 13:201, Tab. 47, Fig. 3. 1864.

Peru: Loreto: Maynas, near Iquitos, Juan Revilla 115.

19. Sciadotenia sp.

Brazil: Para: Serra do Cachimbo, Cuiabá-Santarem highway, km 1300, terra firme, Prance 25705.

This collection might represent a new species which cannot be described however as it is sterile.

V. Telitoxicum Moldenke in Krukoff &
Moldenke, *Brittonia* 3: 42. 1938.

1. Telitoxicum minutiflorum (Diels) Moldenke in Krukoff & Moldenke, *Brittonia* 3: 49. 1938.

Brazil: Acre: Cruzeiro do Sul, N. A. Rosa 744 (IAN), O. P. Monteiro 338 (INPA); Rondônia: S. Pacas Novos, N. A. Rosa 876 (MG).

This is the first record of the species from Acre.

8. Telitoxicum rodriguesii Krukoff, *Phytologia* 33: 329. 1976.

Brazil: Amazonas: Manaus, Prance 1974/s.n., J. M. de Albuquerque 48 (INPA) (estrada do Aleixo, campus do INPA).

VI. Abuta Barrere ex Aublet, *Pl. Guian.*
1: 618. Pl. 250. 1775.

1. Abuta rufescens Aublet, *Hist. Pl. Guian.* 1: 618. Pl. 250. 1775.

Abuta splendida Krukoff & Moldenke, *Bull. Torrey Club* 68: 241. 1941.

French Guiana: C. Moretti 816 (CAY), (River Marouini), de Granville 2706 (CAY) (Saül, trace Orstom-Belvédère Nord, à 300 m environ on Nord du sommet à proximité de la parcelle Orstom, liane, 10 cm in diam. Brazil: Para: Serra de Carajas, 13 km from Amza headquarters, terra firme, A. C. Silva 58.

It is most satisfactory that after repeated attempts since 1970 two collections of Abuta rufescens from French Guiana became available to us: C. Moretti 816, and de Granville 2706. They were from enormous vines and their collection proved to be difficult.

In Supplementary Notes VIII, under A. rufescens (Mem. NYBG, 22: 37-41. 1970) we discuss at length the difficulties of the typification of A. rufescens. In addition, all classic accounts and plates of this species have been contaminated by elements of other species. We suggest that perhaps "A splendida" is a synonym of A. rufescens but refrained from reducing it to synonymy at that time in the absence of specimens from French Guiana.

4. Abuta grisebachii Triana & Planchon, *Ann. Sci. Nat.* IV, 17: 47. 1862.

Brazil: Amazonas: J. M. de Albuquerque 46 (INPA) (Manaus), Prance 24381 (Rio Solimoes, 1 km above mouth of Rio Careiro).

5. Abuta candollei Triana & Planchon, Ann. Sci. Nat. IV. 17: 47. 1862.

Brazil: Roraima: Rio Univini, Pires et al. 14237 (IAN).

This is the first record of this species from Roraima.

6. Abuta aristeguietae Krukoff & Barneby, Mem. N. Y. Bot. Gard. 20(2): 21. 1970.

Venezuela: Parque Nacional El Avila, Pico Naiguata, \pm 1500 m, Bruno Manara s.n. (Aug. 26, 1976) (VEN).

7. Abuta steyermarkii (Standley) Standley, Field Mus. Publ. Bot. 23: 156. 1944.

Guatemala: Alta Verapaz: San Juan Chamelco, M. R. Wilson 40902 (F).

9. Abuta pahni (Martius) Krukoff & Barneby, Mem. N. Y. Bot. Gard. 22(2): 43. 1971.

Venezuela: Mérida: Mesa Bolívar, Santiago López-Palacios 1615 (VEN) (alt. \pm 1200 m), 2209 (alt. \pm 700 m). Peru: San Martin: Mariscal Cáceros, Tocache Nuevo, José Schunke V. 9834.

11. Abuta barbata Miers, Contr. Bot. 3:83. 1871.

French Guiana: Oldeman 3092 (CAY) (River Yaroupi), de Granville 2705 (CAY) (Saul, dense forest, big woody vine).

13. Abuta imene (Martius) Eichler, Flora 47: 389. 1864.

Peru: Loreto: upper Rio Mazán, Al. Gentry 16534.

15. Abuta panurensis Eichler, Flora 47: 390. 1864.

Brazil: Amazonas: David S. Conant 1160 (INPA) (Manaus).

17. Abuta velutina Gleason, Bull. Torrey Club 58: 361. 1931.

Brazil: Para: Serra do Cachimbo, Transamazon highway, 90 km NE of Itaituba, Prance 25842.

21. Abuta sandwithiana Krukoff & Barneby, Mem. N. Y. Bot. Gard. 20(2): 18. 1970.

Male inflorescences and flowers of this species are described for the first time (Gentry 18511):

Inflorescence narrowly racemose-paniculate from serial buds supra-axillary to coeval lvs., minutely gray-pilosulous throughout, the primary axis 3--5 mm; sepals ovate deltate, the 3 outer +0.4 mm, the 3 inner 1.5 mm; androecium 6-merous, the slightly dilated filaments 0.7-0.8 mm, free from base, the vertically dehiscent anthers 0.2 mm.

French Guiana: Grenand 18 (CAY) (creek Kanikari), 1350 (CAY). Brazil: Amazonas: F. Mello s.n. (17/4-1976) (INPA); Magnago 113 (INPA) (Lago Miua); Acre: Cruzeiro do Sul, L. R. Marinho 291 (IAN).

These are the first records of the species from French Guiana and Acre.

24. Abuta racemosa (Thunberg) Triana & Planchon, Ann. Sci. Nat. IV. 17: 48. 1862.

Panama: Canal Zone: Gene Montgomery s.n. (25/10-1975) (MO).

25. Abuta panamensis (Standley) Krukoff & Barneby, Mem. N. Y. Bot. Gard. 20(2): 22. 1970.

Mexico: Chiapas: alt. +550 m, Breedlove 20745 (MO). Costa Rica: Alajuela: Zapote de Alfaro Ruiz, Finca Los Ensayos, H. Barquero s.n. (10/22-1977).

27. Abuta grandifolia (Martius) Sandwith, Kew Bull. 1937: 397. 1937.

Brazil: Para: Serra dos Carajás, B. G. S. Ribeiro 1341 (IAN). In addition, seven other collections in Para, Brazil, in Serra Cachimbo region were collected: Prance 24790 (Cachoeira do Curua), 25348 and Berg 764 (Cuiabá-Santarem highway, km 934), Prance 25860, C. C. Berg 470 & 559 (Serra dos Carajás, Serra Norte), A. C. Silva 118 & 171. Amazonas: M. Silva s.n. (16/8-1977) (INPA) (Manaus), L. R. Marinho 515 (IAN) (Rio Negro), L. F. Coêlho 464 (INPA) (Rio Tea), Magnago 105 (INPA) (Lago Miua), F. Mello s.n. (08/04-1976) (INPA) (Lago do Piaurini), B. de Albuquerque 896 (INPA) (Lago do Castanha-Mirim), J. Ramos 395 (INPA) (Fonte Boa), S. A. Mori 9000 (Coari), 9080 (Coari) Padre Leopoldo Krieger 12493 (INPA) (Tefé) J. Ramos 281 (INPA) (Cruz-

ciro do Sul), 287 (Cruzeiro do Sul); Rondônia: M. R. Cordeiro 572 (IAN), N. A. Rosa 819 (IAN). Peru: Loreto: Rio Javari, Prance 24161 (INPA). Bolivia: Beni: Triunfo Rio Matos, E. Mywt 100 (MO). Ecuador: near Guayaquil, Thaddaeus Haenke 2269 (F), Napo: B. MacBryde 1342 (MO).

29. Abuta dwyerana Krukoff & Barneby, Mem. N. Y. Bot. Gard. 20(2): 73. 1970.

Costa Rica: Cartago: 2 km W of Orosi, +1400 m, Roy W. Lent 4077. Panama: Colón: T. B. Croat 34314.

The first record of the species from Costa Rica & Colon.

30. Abuta longa Krukoff & Barneby, Mem. N. Y. Bot. Gard. 20(2): 21. 1970.

Venezuela: Distrito Federal: Parque Nacional El Avila, Naiguata, B. Manara s.n. (5/7-1977) (VEN); Delta Amacuro: Rio Cuyubini, Cerro de Paloma, alt. 100-200 m, Steyermark 87638 (VEN).

The first record of the species from Distrito Federal and Delta Amacuro. It was known previously from two collections from the State of Miranda.

32. Abuta sp.

Colombia: Chocó: Rio San Juan, just below Tadó, +100 m, Al Gentry & Mary Fallen 17731.

This is the second sterile collection of a species which cannot be described in absence of flowers and or fruits. The vegetative parts of the first collection were described in Supplement XI (Lloydia 33: 333. 1976).

33. Abuta sp.

Colombia: Chocó: vicinity of Unguia, +50 m, Al Gentry 16723 (NY).

This sterile collection probably represents a species of Abuta, to be described when flowers or fruits can be obtained.

Vine; branchlets of the season with petioles and midrib of leaves on both faces densely tomentose-pilose with loose contorted hairs; petioles 2.5--5 cm; leaf-blades chartaceous, plane, glabrous between principal veins, in outline ovate short-acuminate subcordately rounded at base 11--15 x 7--8.5 cm, 3-plinerved from insertion of petiole, the 2 lateral nerves incurved-ascending to + middle of blade, the midrib giving rise

from below middle upward to 3--4 incurved-ascending secondaries, all these with fine tertiary connecting venules faintly prominent above, sharply so beneath, the reticulation of both faces slightly more sharply defined above than beneath, the larger areoles of upper face ± 0.2 mm, those of lower face up to 0.4 mm diam.

VIII. Anomospermum Miers, Ann. Nat.
Hist. III, 14: 101. 1864.

- 4b. Anomospermum chloranthum Diels spp. confusum Krukoff & Barneby, Mem. N. Y. Bot. Gard. 22(2) 69. 1971.

French Guiana: Grenand 1106 (CAY) (Haut Oyapock, Trois Sauts), J. J. de Granville 2708 (Sául, grand liane).

- 5a. Anomospermum reticulatum (Martius) Eichler ssp. reticulatum, Mem. N.Y. Bot. Gard. 22(2): 73. 1971.

Brazil: Amazonas: lower Rio Negro, Pires 13886 (MG), basin of Rio Solimoes, S. A. Mori 9139 (Rio Jandiatuba), 9204 (Igarapé Preto, near Belem).

- 5f. Anomospermum reticulatum (Martius) Eichler ssp. venezuelense Krukoff & Barneby, Mem. N. Y. Bot. Gard. 22(2): 76. 1971.

Venezuela: Yaracuy: Sierras cerca de Aroa ± 800 m, R. F. Smith 6207 (VEN).

This is the third collection of this subspecies. It was previously known from the States of Miranda and Mérida.

IX. Orthomene Barneby & Krukoff, Mem.
N. Y. Bot. Gard. 22(2): 79. 1971.

1. Orthomene schomburgkii (Miers) Barneby & Krukoff, Mem. N. Y. Bot. Gard. 22(2): 80. 1971.

Venezuela: Amazonas: Paul E. Berry 667 (VEN). Surinam: Hostman & Kappler s.n., Irwin 55429 (Maguire number). French Guiana: Moretti 499, 800 (CAY). Brazil: Amazonas: N. A. Rosa 529 (IAN) (Rio Negro), L. F. Coêlho 558 (INPA) (Rio Negro), O. F. Monteiro 820 (INPA) (road Manaus - Porto Velho), Prance 11866 (INPA) (Rio Ituxi, basin of Rio Purus); Rondonia: km 20 on road to Saldanha, J. H. Krikbride et al. 2742, Peru: Loreto: Juan Revilla 310 (Rio Momón), 988 (Rio Ampiyacu), Al. Gentry 16527 (upper Rio Mazán), 16639 (Rio Mazán).

3. Orthomene hirsuta (Krukoff & Moldenke) Barneby & Krukoff, Mem. N. Y. Bot. Gard. 22: 81. 1971.

Brazil: Para: Cuiabá-Santarem highway, km 1225, terre firme, Prance 25604.

This is the first record of this species from the State of Para.

X. Elephantomene Barneby & Krukoff
Lloydia 37: 27. 1974.

1. Elephantomene eburnea Barneby & Krukoff, Lloydia 37: 28. 1974.

French Guiana: Saul: plateau la Douana, S. Mori & J. J. de Granville 8780. This is the third collection of this species, probably from the same plant as de Granville 2704. Seeds of this collection germinated many months after they were sown at N. Y. Botanical Garden.

Changes in the Identifications

	Cited originally as	Cited later as
M. Silva & R. Silva 2366	<u>Orthomene</u> <u>schomburgkii</u> 10 suppl.:27	<u>Anomospermum</u> <u>reticulatum</u> ssp. dielsianum 13 suppl.

Bibliography

(In order to conserve space, we are citing only the papers which are not cited in Supplement VII-XI).

1. Krukoff, B. A. Supplementary notes on American Menispermaceae XII. Neotropical Triclisieae and Anomospermeae. Phytologia 36: 12-16. 1977.

List of Exsiccatae

The first list of Exsiccatae covering our papers on Menispermaceae including Supplement VIII was published in Mem. N. Y. Bot. Gard. 22: 1-89. 1971. The second list of Exsiccatae covering Supplements IX, X and XI was published in Phytologia 33: 337-340. 1976. The present list of Exsiccatae covers Supplements XII and XIII. The number in parenthesis correspondes with the species - number of this and other papers (Supplements VIII to XII). Only numbered collections and those of which the dates of collection are recorded have been listed. If a collector gathered his collection together with others, only his name is cited in this list. Collections with Dr. Prance's numbers are cited under Prance.

- Albuquerque, Byron W. P., de, 896 (A27).
Albuquerque, J. M., de, 46 (A4), 48 (T8).
Anderson, W. R., 10861 (AN7).
- Barquero, Humberto, 1977/1 (A6), 1977/2 (A6), s.n. (10/22-77) (A25).
- Berg, C. C., 470 (A27), 559 (A27), 764 (A27).
Bernardi, A. L., 5841 (AN5).
Berry, Paul E., 667 (01).
Breedlove, 20745 (A25), 23348 (A25), 30779 (A25).
- Cabrera, I., 3650 (A27), 3656 (CH1).
Coelho, L., 464 (A27), 558 (01).
Conant, David S., 1160 (A15).
Cordeiro, M. R., 531 (AN5a), 563 (AN7), 572 (A27), 634 (A17).
Cremers, 1415 (S1).
Croat, T. B., 34314 (A29).
- D'Arcy, W. G., 9301 (A29).
- Gentry, Al., 14301 (A9), 14506 (A17), 15863 (01), 16527 (01), 16534 (A13), 16639 (01), 18505 (CU1), 18511 (A21), 19006 (CU3).
- Granville, de, 2649 (CU2), 2704 (E1), 2705 (A11), 2706 (A1), 2708 (AN4b), 2709 (CU2), 2729 (S6), 5189 (S1).
Grenand, 18 (A21), 1006 (AN4b), 1350 (A21).
- Haenke, Thaddaeus, 2269 (A27).
Halle, Fr., 2225 (S1).
Hatschbach, G., 35974 (A27).
Herbarium Jard. Botan. Rio, 140813 (A14).
Hostmann, W. R., s.n. (01).
- Irwin, H. S., 55429 (01) (Maguire number).

- Kirkbride, J. H., Jr., 2742 (O1).
Krieger, Padre Leopoldo, 12493 (A27).
Lent, Roy W., 2984 (A25), 4077 (A29).
López-Palacios, Santiago, 1615 (A9), 2209 (A9).
MacBryde, B., 1342 (A27).
Magnago, 105 (A27), 113 (A21).
Maguire, B., 55429 (O1).
Manara, Bruno, s.n. (8/26-1976) (A6), s.n. (5/7-1977) (A30).
Marinho, L. R., 133 (T1), 291 (A21), 384 (O1), 515 (A27).
Martin, Richard T., 1650 (A27), 1696 (A27), 1752 (A27),
1760 (A27).
Mello Filho, Luiz Emygdio de, s.n. (17/4-1976) (A21), s.n.
(8/4-1976) (A27).
Monteiro, O. P., 338 (T1), 820 (O1).
Montgomery, Gene, s.n. (25/10-1975) (A24).
Moretti, C., 454 (S1), 499 (O1), 800 (O1), 808 (S1), 816 (A1),
843 (S1).
Mori, S., 7946 (CU1), 8620 (CU2), 8771 (S1), 8780 (E1), 8803
(S1), 9000 (A27), 9139 (AN5a), 9204 (AN5a).
Mywt, E., 100 (A27).
Oldeman, R. A. A., 3092 (A11).
Philcox, D., 4571 (A27).
Pires, João Murça, 13886 (AN5a), 14754 (A27).
Plowman, T., 2521 (A27), 6032 (CH1).
Prance, G. T., 9080 (A27), 11866 (O1), 21280 (S9), 24161 (A27),
24381 (A4), 24790 (A27), 25348 (A27), 25506 (S7), 25598
(S7), 25604 (O1), 25705 (S19), 25842 (A17), 25860 (A27),
1974/s.n. (T8).
Ramos, J., 281 (A27), 287 (A27), 395 (A27).
Revilla, Juan, 115 (S12), 310 (O1), 445 (CU1), 988 (O1).
Ribeiro, B. G. S., 1299 (AN5a), 1341 (A27).
Rosa, N. A., 529 (O1), 744 (T1), 819 (A27), 876 (T1).
Sastre, C., 1601 (A27), 1607 (A27), 1668a (A27), 1785 (A27).
Schomburgk, Richard, 107/696 (A27).
Schunke, V., José, 41 (A16), 45 (S2), 47 (S2), 49 (A9), 50 (A9),
51 (A16), 8143 (A17), 8260 (CH1), 9834 (A9), 9835 (S2), 9836
(S2).
Silva, A. C., 58 (A1), 118 (A27), 171 (27).
Silva, M., 2366 (AN5b), s.n. (16/8-1977) (A27).
Smith, R. F., 6207 (AN5E).
Sparre, Benkt, 13082 (A27).
Steyermark, J. A., 87638 (A30).
Wilson, Michael R., 40902 (A7).